

WHAT IS CLAIMED IS:

1. An interposer comprising a hollow body of electrically conductive material disposed in an electrically insulating carrier.
2. The interposer of claim 1, wherein said hollow body comprises at least one void.
3. The interposer of claim 1, wherein said hollow body comprises a plurality of voids.
4. The interposer of claim 1, wherein said hollow body comprises at least two voids in registration with one another and disposed on opposite sides of said carrier.
5. The interposer of claim 1, wherein said carrier comprises a plurality of vias in which a plurality of said hollow bodies is disposed.
6. An interposer for connecting a module to a printing wiring board comprising:
 - a carrier that has at least one electrically conductive via and that is disposed so that said via is in registration with a connector of said module and a connector of said printed wiring board; and
 - at least one electrical contact button that is hollow and that is disposed in said via for electrical contact with the connector of said module and the connector of said printed wiring board.
7. The interposer of claim 6, wherein said electrical contact button comprises at least one void.

8. The interposer of claim 6, wherein said electrical contact button comprises a plurality of voids.

9. The interposer of claim 6, wherein said electrical contact button comprises at least two voids in registration with one another and disposed on opposite sides of said carrier.

10. The interposer of claim 6, wherein said carrier comprises a plurality of said vias in which a plurality of said electrical contact buttons is disposed

11. A method for fabricating an electrical contact button comprising:

forming a sacrificial post;

forming a pattern of electrically conductive material on said sacrificial post; and

removing said sacrificial post, thereby providing said electrical contact button.

12. The method of claim 11, wherein said electrically conductive material is selected from the group consisting of: copper, nickel, gold, chromium, titanium, lead, tin, bismuth, antimony, tungsten, molybdenum and alloys thereof.

13. The method of claim 11, wherein said pattern of electrically conductive material is formed on said sacrificial post by a process selected from the group that consists of: physical masking and photoresist.

14. The method of claim 13, wherein said physical masking process is selected from the group that consists of: vacuum deposition and electroless plating.
15. The method of claim 13, wherein said photoresist process is selected from the group consisting of: metal additive and metal subtractive.
16. The method of claim 13, wherein said photoresist process is selected from the group that consists of: vacuum deposition, sputtering, electroless plating, laminating foil and preformed sheet metal.
17. The method of claim 11, wherein said sacrificial post is formed of a material that thermally decomposes and vaporizes.
18. The method of claim 17, wherein said sacrificial post material is a polymer.
19. The method of claim 17, wherein said sacrificial post material is selected from the group consisting of: polymethylmethacrylate, polyalpha-methylstyrene, polyethyleneoxide, polyphenylene oxide and polystyrene.
20. The method of claim 11, wherein said sacrificial post is removed by thermal decomposition.
21. The method of claim 11, wherein said pattern is selected from the group consisting of: continuous and non-continuous.
22. The method of claim 11, wherein said sacrificial post is formed in a carrier.
23. The method of claim 22, wherein said carrier is formed of an electrically insulating material.

24. The method of claim 23, wherein said electrically insulating material is selected from the group consisting of: polyimide, polyester, ceramic, quartz, glass, polymer coated metal, polytetrafluoroethylene and oxides.
25. The method of claim 23, wherein said carrier includes a plurality of perforations in which a plurality of said sacrificial posts are formed, wherein a pattern of said electrically conductive material is formed on each of said sacrificial posts, and wherein said sacrificial posts are removed to thereby form a plurality of electrical contact buttons.
26. The method of claim 25, wherein said sacrificial posts are formed in said perforations by injection molding.
27. The method of claim 25, wherein a coating of electrically conductive material is formed on at least one of said perforations before said sacrificial posts are formed.
28. The method of claim 25, wherein said carrier is formed of an electrically insulating material.
29. The method of claim 28, wherein said electrically insulating material is selected from the group that consists of: polyimide, polyester, ceramic, quartz, glass, polymer coated metal and polytetrafluoroethylene, oxides.
30. The method of claim 25, wherein said electrically conductive material is selected from the group consisting of: copper, gold, nickel, titanium, and alloys thereof.
31. The method of claim 25, wherein said pattern of electrically conductive material is formed on said sacrificial posts by a process selected from the group consisting of: physical masking and photoresist.

32. The method of claim 31, wherein said physical masking process is selected from the group consisting of: vacuum deposition and electroless plating.

33. The method of claim 31, wherein said photoresist process is selected from the group consisting of: metal additive and metal subtractive.

34. The method of claim 31, wherein said photoresist process is selected from the group consisting of: vacuum deposition, sputtering electroless plating, laminating foil and preformed sheet metal.

35. The method of claim 25, wherein said sacrificial post is formed of a material that thermally decomposes and vaporizes.

36. The method of claim 35, wherein said sacrificial post material is selected from the group consisting of: polymethylmethacrylate, polyalpha-methylstyrene, polyethyleneoxide, polyphenylene oxide and polystyrene.

37. The method of claim 25, wherein said sacrificial posts are removed by thermal decomposition.

38. The method of claim 25, wherein said pattern is selected from the group consisting of: continuous and non-continuous.

39. A method for fabricating a plurality of electrical contacts in a land grid array comprising:

laminating to a carrier a preformed metallic pattern of contact buttons in registry with a plurality of vias in said carrier; and

removing laminated metal from said carrier in between said contact buttons.

40. The method of claim 39, wherein the metal of said pattern is selected from the group consisting of: foil and sheet metal.